Pace Analytical Services, Inc.
315 Chestnut Street
Virginia, MN 55792
(218) 742-1042

August 01, 2016

Tom Moe
USS Corporation
P.O. Box 417
8771 Park Ridge Dr
Mountain Iron, MN 55768

RE: Project: USS MinTac NPDES-LINE 3 Wkly
Pace Project No.: 1269415

Dear Tom Moe:
Enclosed are the analytical results for sample(s) received by the laboratory on June 29, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Melisa M Woods
melisa.woods@pacelabs.com
Project Manager

Enclosures

cc: Cory Hertling
Terri Sabetti, NTS

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CERTIFICATIONS

Project: USS MinTac NPDES-LINE 3 Wkly
Pace Project No.: 1269415

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
525 N 8th Street, Salina, KS 67401
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

Virginia Minnesota Certification ID's

315 Chestnut Street, Virginia, MN 55792
Alaska Certification #MN01084
Arizona Department of Health Certification #AZ0785
Minnesota Dept of Health Certification #: 027-137-445
North Dakota Certification: # R-203
Wisconsin DNR Certification # : 998027470
WA Department of Ecology Lab ID# C1007
Nevada DNR #MN010842015-1
Oklahoma Department of Environmental Quality

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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SAMPLE SUMMARY

Project: USS MinTac NPDES-LINE 3 Wkly
Pace Project No.: 1269415

Lab ID	Sample ID	Matrix	Date Collected	Date Received
1269415001	**WS-002 Scrubber Make-Up**	Water	06/29/16 08:55	06/29/16 14:40
1269415002	**WS-003 Thickner Overflow**	Water	06/29/16 08:45	06/29/16 14:40

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SAMPLE ANALYTE COUNT

Project: USS MinTac NPDES-LINE 3 Wkly
Pace Project No.: 1269415

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
1269415001	**WS-002 Scrubber Make-Up**	EPA 200.7	BD1	3	PASI-M
		EPA 300.0	DMB	1	PASI-V
1269415002	**WS-003 Thickner Overflow**	EPA 200.7	BD1	3	PASI-M
		EPA 300.0	DMB	1	PASI-V

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ANALYTICAL RESULTS

Project: USS MinTac NPDES-LINE 3 Wkly
Pace Project No.: 1269415

Sample: WS-002 Scrubber Make-Up **Lab ID: 1269415001** Collected: 06/29/16 08:55 Received: 06/29/16 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP, Lab Filtered	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
Calcium, Dissolved	**91900**	ug/L	500	15.8	1	07/12/16 09:13	07/12/16 17:44	7440-70-2	
Magnesium, Dissolved	**184000**	ug/L	500	7.4	1	07/12/16 09:13	07/12/16 17:44	7439-95-4	
Total Hardness by 2340B, Dissolved	**985000**	ug/L	3300	69.9	1	07/12/16 09:13	07/12/16 17:44		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**712**	mg/L	20.0	10.0	10		07/09/16 01:02	14808-79-8	

Sample: WS-003 Thickner Overflow **Lab ID: 1269415002** Collected: 06/29/16 08:45 Received: 06/29/16 14:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP, Lab Filtered	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
Calcium, Dissolved	**627000**	ug/L	500	15.8	1	07/12/16 09:13	07/12/16 17:47	7440-70-2	
Magnesium, Dissolved	**112000**	ug/L	500	7.4	1	07/12/16 09:13	07/12/16 17:47	7439-95-4	
Total Hardness by 2340B, Dissolved	**2020000**	ug/L	3300	69.9	1	07/12/16 09:13	07/12/16 17:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**1600**	mg/L	40.0	20.0	20		07/09/16 01:23	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: USS MinTac NPDES-LINE 3 Wkly
Pace Project No.: 1269415

QC Batch: 424437 Analysis Method: EPA 200.7
QC Batch Method: EPA 200.7 Analysis Description: 200.7 MET Dissolved
Associated Lab Samples: 1269415001, 1269415002

METHOD BLANK: 2312666 Matrix: Water
Associated Lab Samples: 1269415001, 1269415002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium, Dissolved	ug/L	ND	500	15.8	07/12/16 16:58	
Magnesium, Dissolved	ug/L	ND	500	7.4	07/12/16 16:58	

LABORATORY CONTROL SAMPLE: 2312667

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium, Dissolved	ug/L	20000	18600	93	85-115	
Magnesium, Dissolved	ug/L	20000	18700	93	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2312668 2312669

Parameter	Units	1268983001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium, Dissolved	ug/L	73800	20000	20000	92800	91800	95	90	70-130	1	30	
Magnesium, Dissolved	ug/L	52200	20000	20000	70900	70400	94	91	70-130	1	30	

MATRIX SPIKE SAMPLE: 2312670

Parameter	Units	10354801001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Calcium, Dissolved	ug/L	210000	20000	232000	109	70-130	
Magnesium, Dissolved	ug/L	151000	20000	173000	109	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: USS MinTac NPDES-LINE 3 Wkly
Pace Project No.: 1269415

QC Batch: 87181 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 1269415001, 1269415002

METHOD BLANK: 341497 Matrix: Water
Associated Lab Samples: 1269415001, 1269415002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfate	mg/L	ND	2.0	1.0	07/08/16 15:49	

LABORATORY CONTROL SAMPLE: 341498

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	50	51.1	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 341499 341500

Parameter	Units	1270009002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	385	500	500	920	929	107	109	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 341501 341502

Parameter	Units	1269360001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	ND	50	50	50.3	50.0	100	99	90-110	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: USS MinTac NPDES-LINE 3 Wkly
Pace Project No.: 1269415

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis
PASI-V	Pace Analytical Services - Virginia

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: USS MinTac NPDES-LINE 3 Wkly
Pace Project No.: 1269415

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
1269415001	**WS-002 Scrubber Make-Up**	EPA 200.7	424437	EPA 200.7	424798
1269415002	**WS-003 Thickner Overflow**	EPA 200.7	424437	EPA 200.7	424798
1269415001	**WS-002 Scrubber Make-Up**	EPA 300.0	87181		
1269415002	**WS-003 Thickner Overflow**	EPA 300.0	87181		

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL

WO#: 1269415

PM: MMW Due Date: 07/14/16

CLIENT: USS CORP

Page: 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	USS Corporation	Report To:	Tom Moe	Attention:	
Address:	P.O. Box 417	Copy To:		Company Name:	
Mt. Iron, MN 55768				Address:	
Email:		Purchase Order #:		Pace Quote:	
Phone:	Fax:	Project Name:	NPDES-LINE 3 Wkly	Pace Project Manager:	heather.zika@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	

Regulatory Agency

State / Location

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): LAB FILTERED: SO4	Lab FILTERED: Ca,Mg,Hard	Residual Chlorine (Y/N)	
1	WS-002 Scrubber Make-Up	WT		6/29/16	08:55	6/29/16	08:55												X	X			LF,LF
2	WS-003 Thickner Overflow	WT		6/29/16	08:45	6/29/16	08:45												X	X			LF,LF
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Paul Martin	6-29-16	14:40	[signature]	6-29	14:40	5.9	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Paul Martin

SIGNATURE of SAMPLER: [signature] DATE Signed: 6-29-16

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace Analytical®	Document Name: Sample Condition Upon Receipt Form	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: F-VM-C-001-Rev.09	Issuing Authority: Virginia Minnesota Quality Office

WO#: 1269415

1269415

Sample Condition Upon Receipt **Client Name:** USS **Project #:**

Courier: ☐Fed Ex ☐UPS ☐USPS ☑Client ☐Commercial ☐Pace ☐Other:

Tracking Number:

Custody Seal on Cooler/Box Present? ☐Yes ☑No **Seals Intact?** ☐Yes ☑No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐Bubble Wrap ☐Bubble Bags ☑None ☐Other: **Temp Blank?** ☑Yes ☐No

Thermometer Used: ☑ 140792808 **Type of Ice:** ☑Wet ☐Blue ☐None ☑Samples on ice, cooling process has begun

Cooler Temp Read °C: 5.6 **Cooler Temp Corrected °C:** 5.9 **Biological Tissue Frozen?** ☐Yes ☐No ☑NA

Temp should be above freezing to 6°C Correction Factor: 0.3 **Date and Initials of Person Examining Contents:** 6-29-16 cf

Comments:

Chain of Custody Present?	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out?	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished?	☑Yes	☐No	☐N/A	3.
Sampler Name and Signature on COC?	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time?	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72 hr)?	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested?	☐Yes	☑No	☐N/A	7.
Sufficient Volume?	☑Yes	☐No	☐N/A	8.
Correct Containers Used?	☑Yes	☐No	☐N/A	9.
-Pace Containers Used?	☑Yes	☐No	☐N/A	
Containers Intact?	☑Yes	☐No	☐N/A	10.
Filtered Volume Received for Dissolved Tests?	☐Yes	☐No	☑N/A	11. Note if sediment is visible in the dissolved containers.
Sample Labels Match COC?	☑Yes	☐No	☐N/A	12.
-Includes Date/Time/ID/Analysis Matrix: WT				
All containers needing acid/base preservation will be checked and documented in the pH logbook.	☐Yes	☐No	☑N/A	See pH log for results and additional preservation documentation
Headspace in Methyl Mercury Container	☐Yes	☐No	☑N/A	13.
Headspace in VOA Vials (>6mm)?	☐Yes	☐No	☑N/A	14.
Trip Blank Present?	☐Yes	☐No	☑N/A	15.
Trip Blank Custody Seals Present?	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐Yes ☐No

Person Contacted: Date/Time:

Comments/Resolution:

FECAL WAIVER ON FILE Y N TEMPERATURE WAIVER ON FILE Y N

Project Manager Review: Date: 6/30/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)